

**REMARKS**

Claims 1-15 are pending in this application. Claims 1 and 6 are independent claims. Claims 1, 4, 6, 9, and 10 are amended.

**Entry of Amendment After Final Rejection**

Entry of the Amendment is requested under 37 C.F.R. § 1.116 because the Amendment: a) places the application in condition for allowance for the reasons discussed herein; b) does not present any additional claims without canceling the corresponding number of final rejected claims; and/or c) places the application in better form for an appeal, if an appeal is necessary. Entry of the Amendment is thus respectfully requested.

**Claim Objections:**

Claims 1, 4 and 6 are objected to because of the following informalities: 1) claims 1 and 6 recite "a counter weight" rather than "a first counter weight," and 2) claim 4 recites "crank roads" rather than "crank rods."

The Applicants thank the Examiner for pointing out the above errors and have amended claims 1, 4, and 6 to overcome the objections. In light of the amendments to claims 1, 4, and 6, the Applicants respectfully request the objection to claims 1, 4, and 6 be withdrawn.

**Claim Rejections – 35 U.S.C. § 103:**

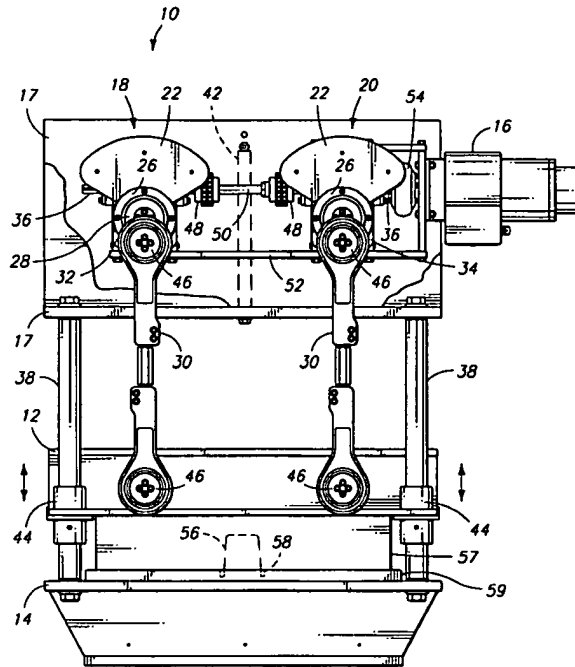
Claims 1, 3-7, 10, 12-15 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent 6,067,886 (Irwin) in view of U.S. Patent 2,706,637 (Cain). The Applicants respectfully traverse.

The Applicants submit claim 1 is not rendered obvious by the combination of Irwin and Cain because neither reference, alone, or in combination, disclose, at least, "a first conversion mechanism, the first conversion mechanism including a first rotary shaft, a first counterweight connected to the first rotary shaft, and **a first drive shaft connected to the first counter weight**," as recited in claim 1.

Irwin discloses a machine trim press with a first flywheel assembly 18 and a second flywheel assembly 20. In operation, a servo motor 16 drives the pair of flywheel assemblies 18 and 20 in a counter rotating motion relative to one another. Each



flywheel assembly forms a rotating eccentric mass having a center of gravity that is offset from its axis of rotation. The rotating mass of each assembly 18 and 20 are driven so that the dynamic forces produced from the rotation of each eccentric mass is additive in the direction of motion of a upper platen 12, and substantially cancels out all other directions within the rotating plane of the masses.



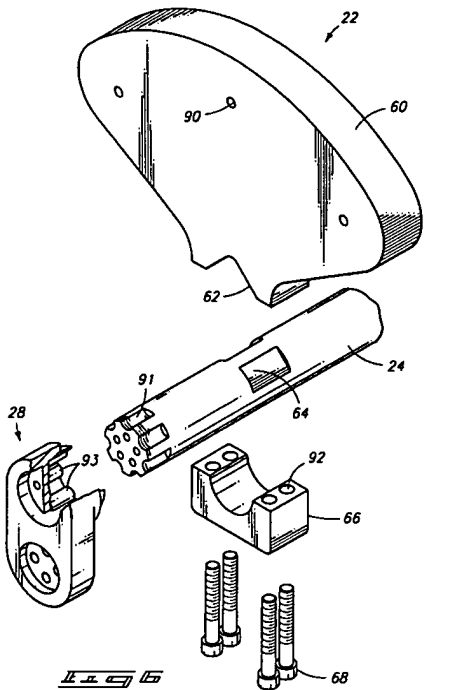
*FIG. 6*

Irwin's flywheel assemblies 18 and 20 are each formed from an output shaft 24 which is supported for rotation at either end by a rotating bearing assembly 26. A throw arm 28 is fixedly mounted to each end of each output shaft 24 to form a drive arm for driving platen 12 in vertically reciprocating motion. Throw arm 28 is driven in rotation by the shaft, which in turn is driven by drive motor 16. The radial outermost end of each arm 28 is pivotally mounted to a platen connecting rod 30, along an upper end portion. A lower end portion of rod 30 is then pivotally mounted to platen 12. In this manner, rod 30 and throw arm 28 form a crank arm assembly 31 that drives platen 12 in reciprocating motion, at each corner (see column 5, lines 47-58).

In more detail, Irwin's flywheel assembly, as shown in FIG. 6 (see below), includes a weighted member 60 which is interlocked to the output shaft 24 via the shaft faces 64



and the collar 66. The throw arm 28 is secured to an end of the output shaft via mating splines 91 and 93 (see column 10, lines 52-67 and column 11, lines 1-7). As is clear from Irwin's disclosure, Irwin's counter weight 60 is connected only to the output shaft 24, however, the counter weight recited in claim 1 also connects to "**a first drive shaft.**" Irwin clearly fails to disclose this feature, accordingly, the Applicants submit Irwin cannot be relied on to render the above feature obvious.



Cain discloses a tape recorder and playback mechanism adapted to make a record on a magnetizable tape and to play the record back. Cain does not disclose the conversion mechanisms recited in claim 1, accordingly, the Applicants submit Cain cannot be relied on for rendering "a first conversion mechanism, the first conversion mechanism including a first rotary shaft, a first counterweight connected to the first rotary shaft, and **a first drive shaft connected to the first counter weight,**" as recited in claim 1, obvious.

Because neither Irwin nor Cain disclose "a first conversion mechanism, the first conversion mechanism including a first rotary shaft, a first counterweight connected to the first rotary shaft, and **a first drive shaft connected to the first counter weight,**"



as recited in claim 1, the Applicants submit the combination of Irwin and Cain cannot render the above feature obvious.

For at least the reasons given above, the Applicants respectfully request the rejection of claim 1, and all claims which depend thereon, under 35 U.S.C. § 103 as being obvious over Irwin in view of Cain be withdrawn.

Regarding claim 6, the Applicants submit the combination of Irwin and Cain does not render claim 6 obvious because neither reference, alone, or in combination, disclose “a belt stretched over the driving pulley, the first driven pulley, the second driven pulley and the idle pulley, to convey a rotation drive force from the driving pulley to the first driven pulley and the second drive pulley, so that rotational directions of the rotation drive force become different between the first driven pulley and the second driven pulley.”

The Examiner asserts that Cain discloses a rotation drive source with a driving pulley 28, a first driven pulley 30 provided on a first rotary shaft 36, a second driven pulley 31 provided on the second rotary shaft 37 so as to be paired with the first driven pulley, an idle pulley 25 provided so as to freely rotate. Cain's device includes at least two separate belts. The first belt 32 is stretched between the alleged first driven pulley 30 and the alleged second driven pulley 31. The second belt 26 is stretched between the alleged driving pulley 28 and the alleged idle pulley 25. However, claim 6 recites “a belt stretched over the driving pulley, the first driven pulley, the second driven pulley and the idle pulley, to convey a rotation drive force from the driving pulley to the first driven pulley and the second drive pulley.” Because Cain fails to disclose “a belt” stretched over “the driving pulley, the first driven pulley, the second driven pulley and the idle pulley, to convey a rotation drive force from the driving pulley to the first driven pulley and the second drive pulley,” as recited in claim 6, the Applicants submit Cain cannot be relied on for rendering the above feature obvious.

Irwin does not disclose “a belt stretched over the driving pulley, the first driven pulley, the second driven pulley and the idle pulley, to convey a rotation drive force from the driving pulley to the first driven pulley and the second drive pulley,” accordingly, the Applicants submit Irwin cannot be relied on for disclosing the above features.

Because neither Cain nor Irwin disclose, at least, “a belt stretched over the driving pulley, the first driven pulley, the second driven pulley and the idle pulley, to



convey a rotation drive force from the driving pulley to the first driven pulley and the second drive pulley, so that rotational directions of the rotation drive force become different between the first driven pulley and the second driven pulley," as recited in claim 6, the Applicants submit the combination of Irwin and Cain cannot render the above feature obvious.

For at least the reasons given above, the Applicants respectfully request the rejection of claim 6, and all claims which depend thereon, under 35 U.S.C. § 103 as being obvious over Irwin in view of Cain be withdrawn.

**Allowable Subject Matter**

Claims 2, 8-9, and 11 are objected as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The Applicants thank the Examiner for indicating the allowability of the above claims, however, in light of the Amendments made to the independent claims, the Applicants submit amending the above claims are unnecessary at this time.



**CONCLUSION**


In view of the above, Applicant earnestly solicits reconsideration and allowance of all of the pending claims.

Should there be any matters that need to be resolved in the present application, the Examiner is respectfully requested to contact the telephone number of the undersigned below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

HARNESS, DICKEY, & PIERCE, P.L.C.

By:   
Donald J. Daley, Reg. No. 35,094  
P.O. Box 8910  
Reston, Virginia 20195  
(703) 668-8000

DJD/DMB:cfc